

COSC 201 – Lab #1

Moar Practice.

Purpose: Give you more practice with Java.

Tasks:

- 1.) Create a class called Lab1. All of the methods that you'll write for this lab will be coded in this class.
- 2.) Write a method that prints the representation of an integer passed in as a parameter as a Roman numeral. Thus, if the parameter is 1998, the output is MCMXCVIII. There should be no return for this method.
- 3.) Implement the howMany method, which returns the number of occurrences of val in arr. There should be no prints in this method. Use this signature:

```
public int howMany(int [][] arr, int val)
```

- 4.) Implement a split method that returns an array of String containing the tokens of a String passed in as a parameter. There should be no prints in this method. The method signature:

```
public String [] mysplit(String str)
```

For example – if str was “This is COSC 201” it would return a String array {“This”, “is”, “COSC”, “201”}. You may not use the .split method from the Java API.

- 5.) Create a main method to run and test the above code. You can use user input if you wish, but this is not necessary.
- 6.) Turn in your properly commented .java file via Blackboard by 11:59pm Monday. You may work in pairs on this lab. If you work in pairs, submit only one file per pair but be sure that both names appear in the top of file comment block.

Grading expectations: We will be testing your methods using a variety of tests (we'll alter your main method to accomplish this). Possible deductions:

- * Method that does not work correctly
- * Failure to name your methods in #3 and #4 as specified
- * Neglecting to write a main method that tests each of the methods
- * Lack of a comment block at the top of the file (see the example on the website)
- * Lack of method comments (ditto)
- * Failure to turn in the correct file/code does not compile
- * Use of .split from the Java API.

Credit: M. A. Weiss, “Data Structures & Problem Solving Using Java, 4e” (your book)